

WT *AVP1-1* *AVP1-2*

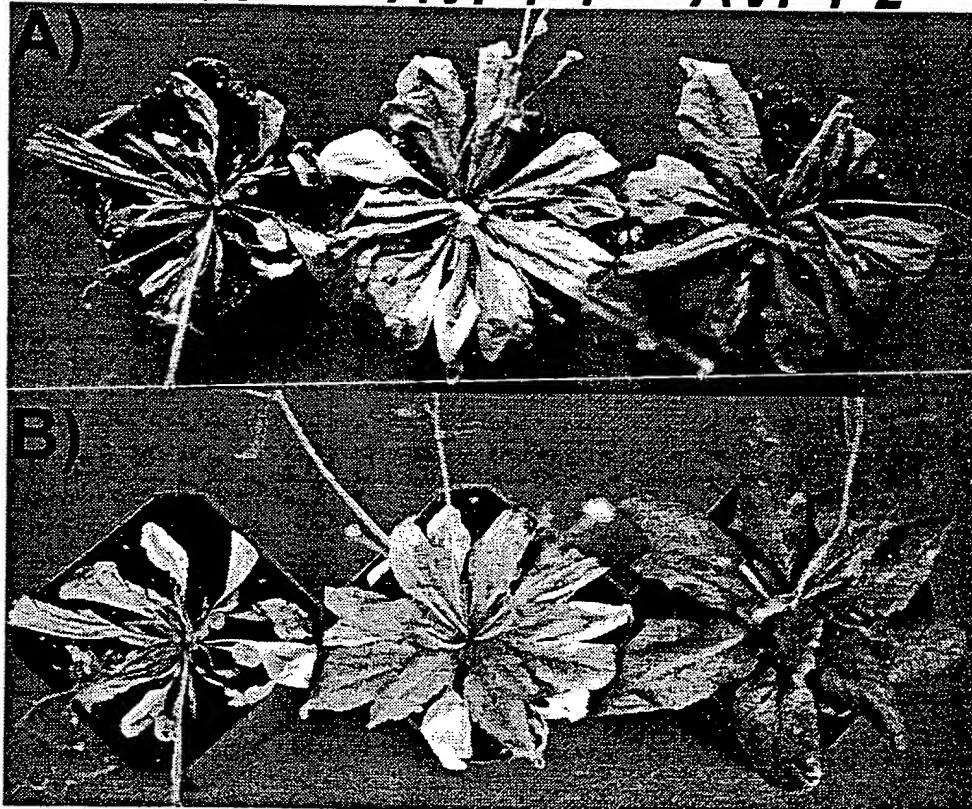
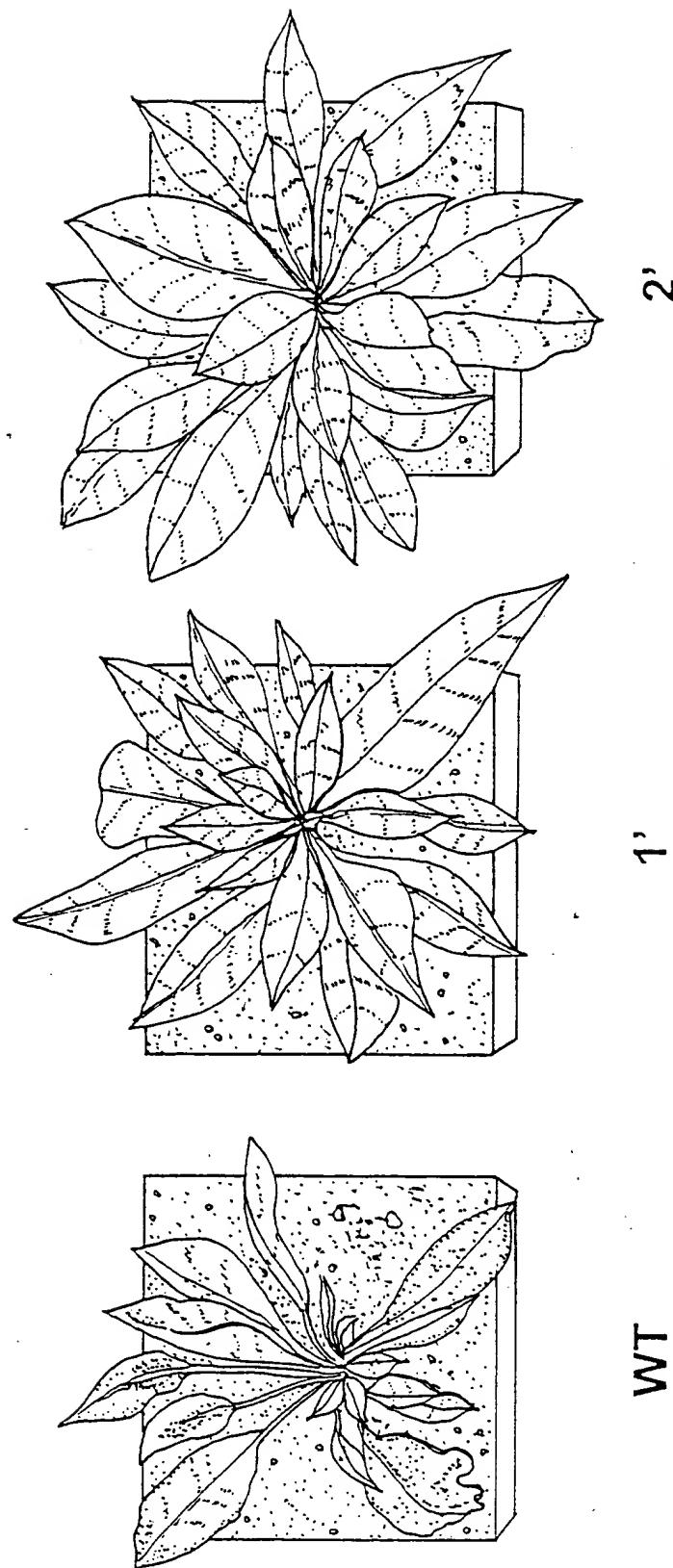


Figure 1

FIG. 2



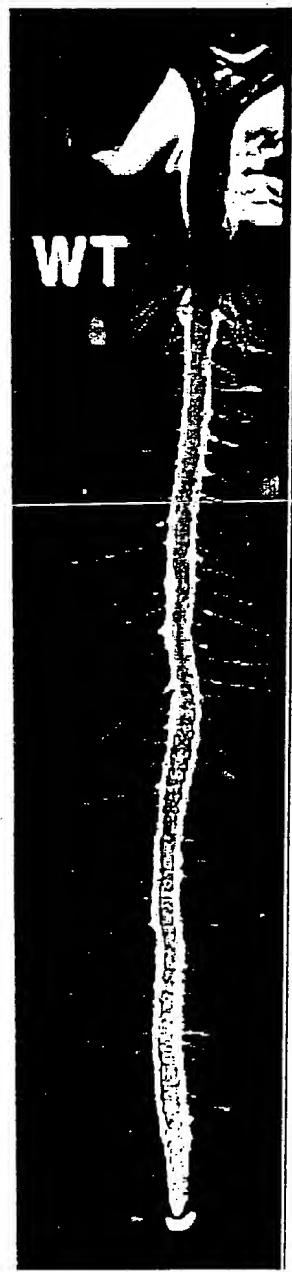


FIG. 3A

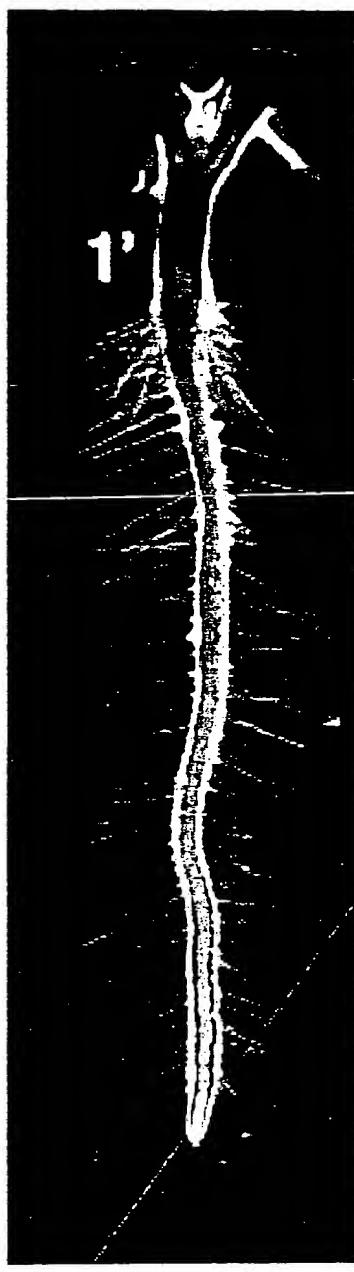


FIG. 3B

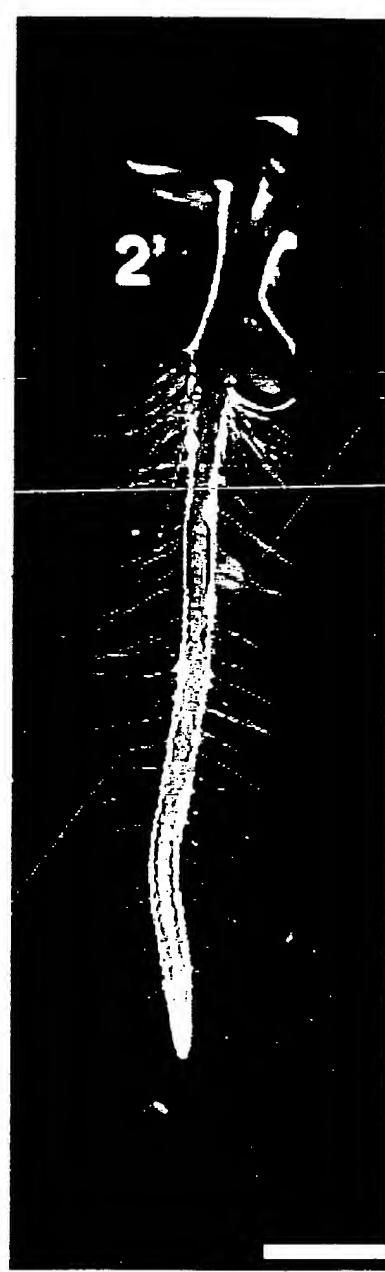


FIG. 3C

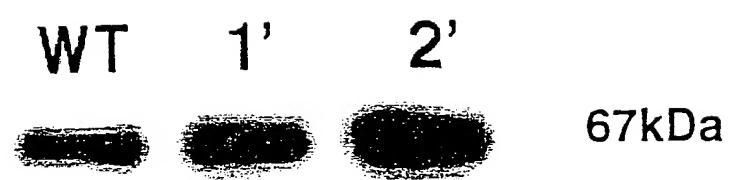
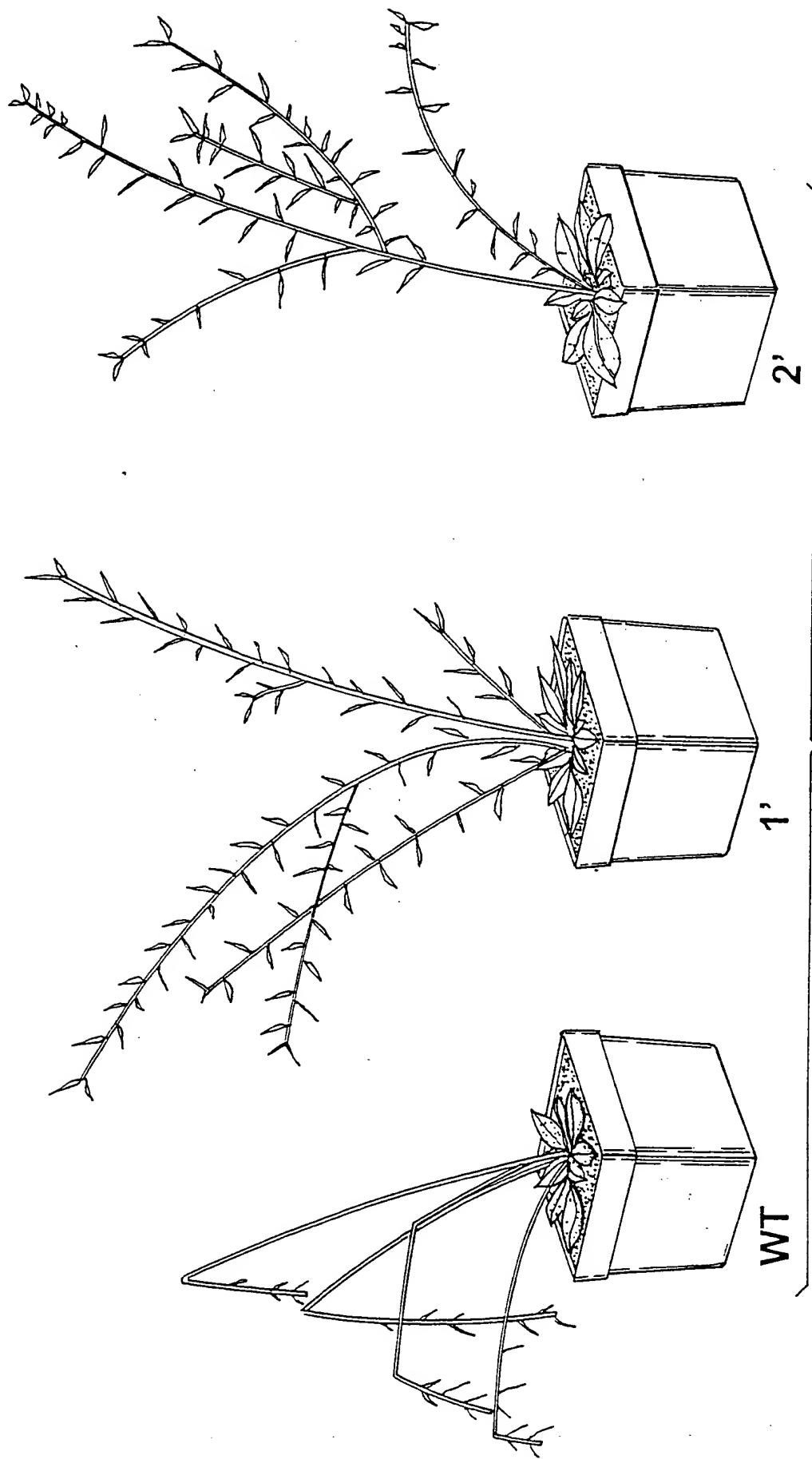


FIG. 4

FIG. 5



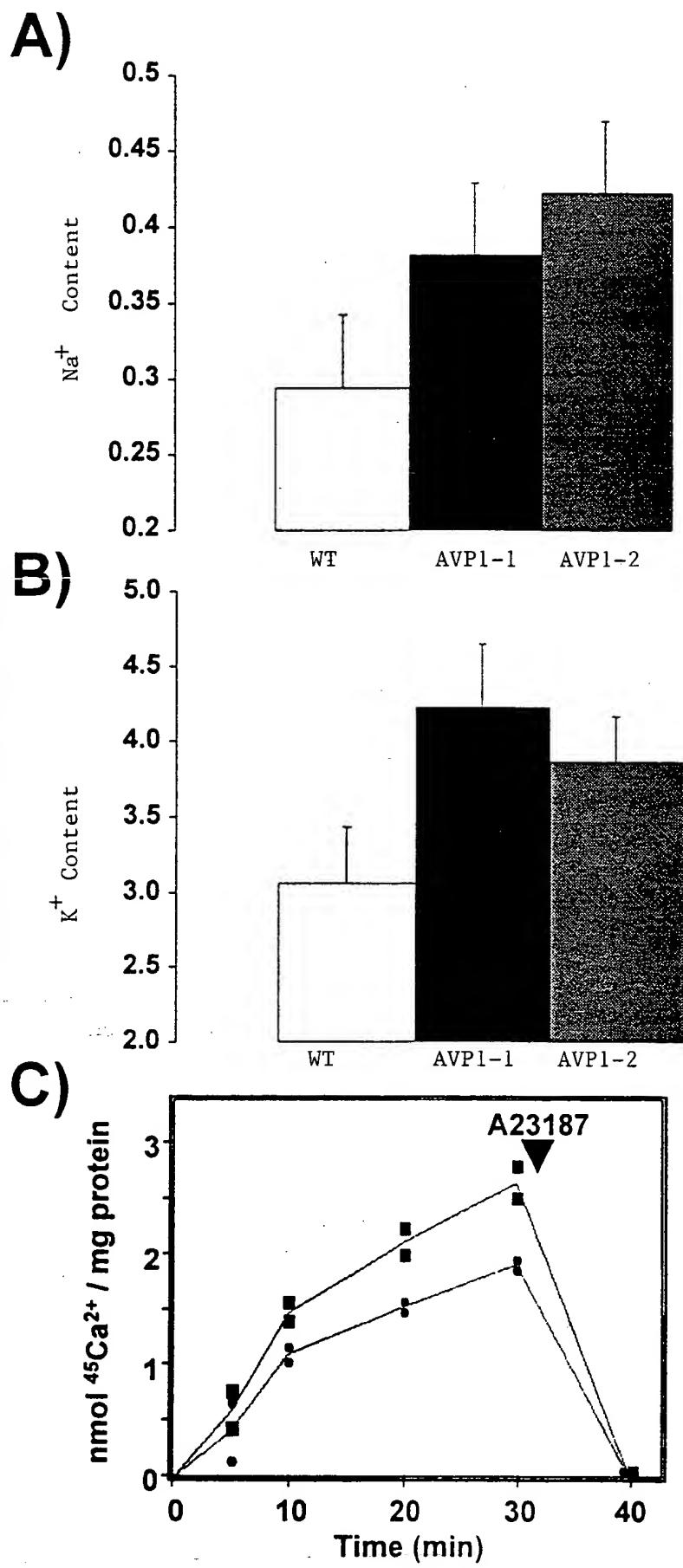


Figure 6

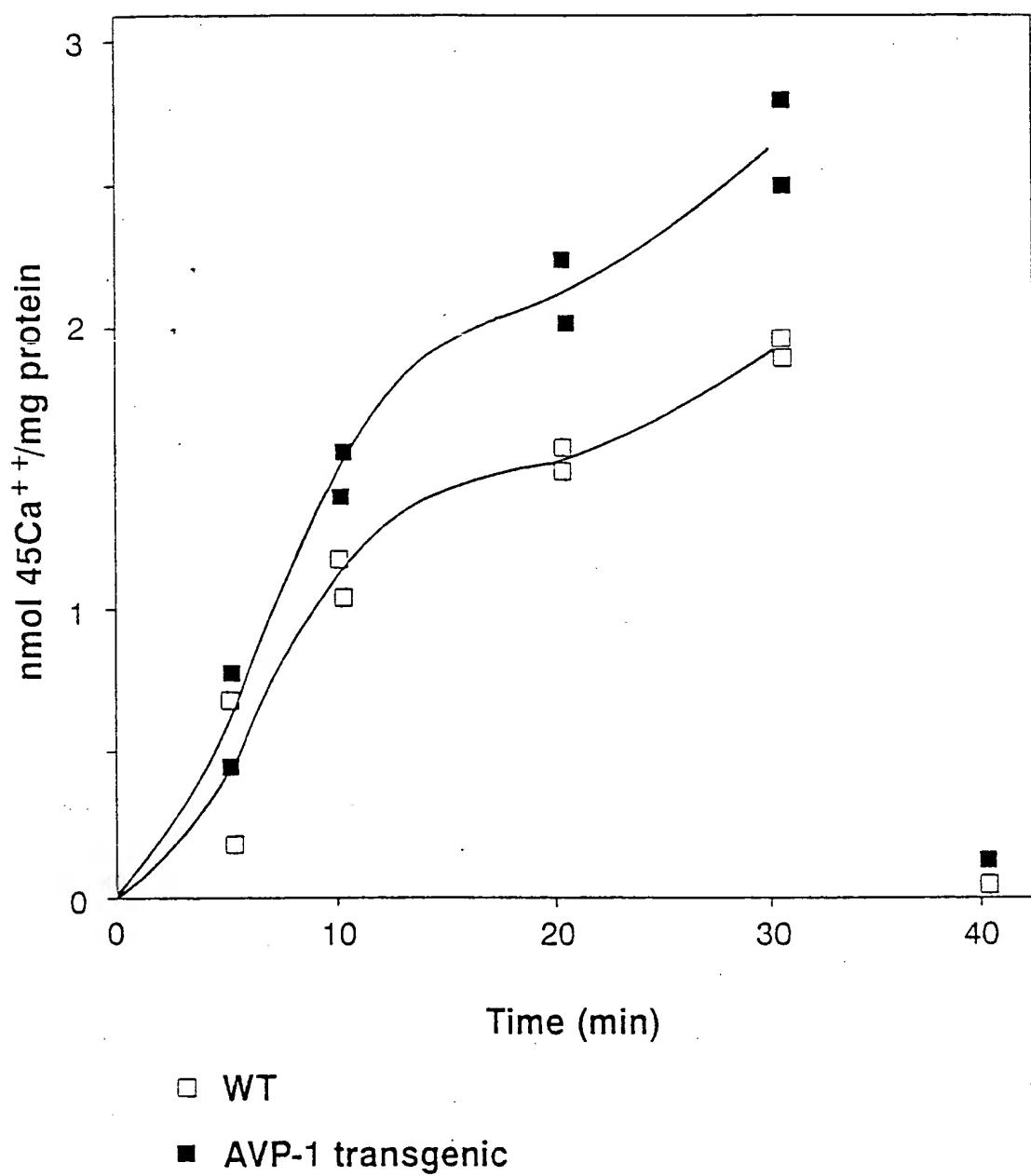


FIG. 7

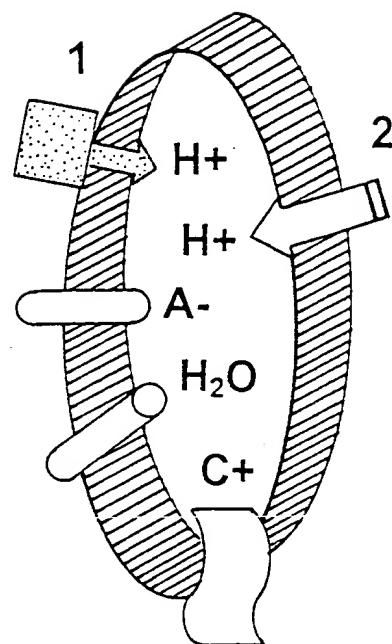


FIG. 8A
WT
Vacuole

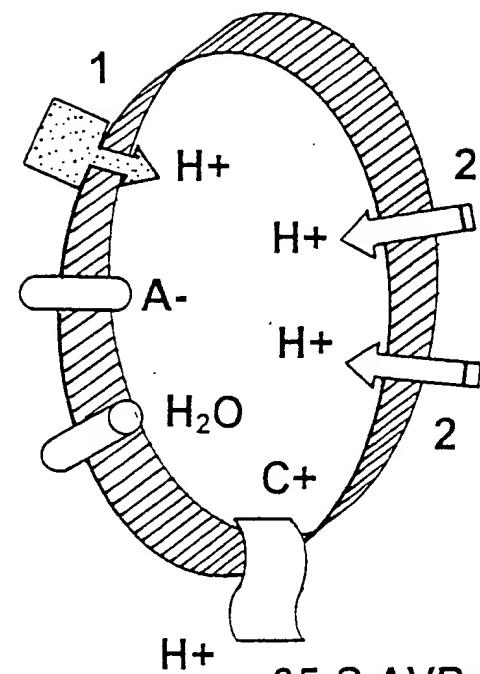


FIG. 8B
35-S AVP-1
Vacuole

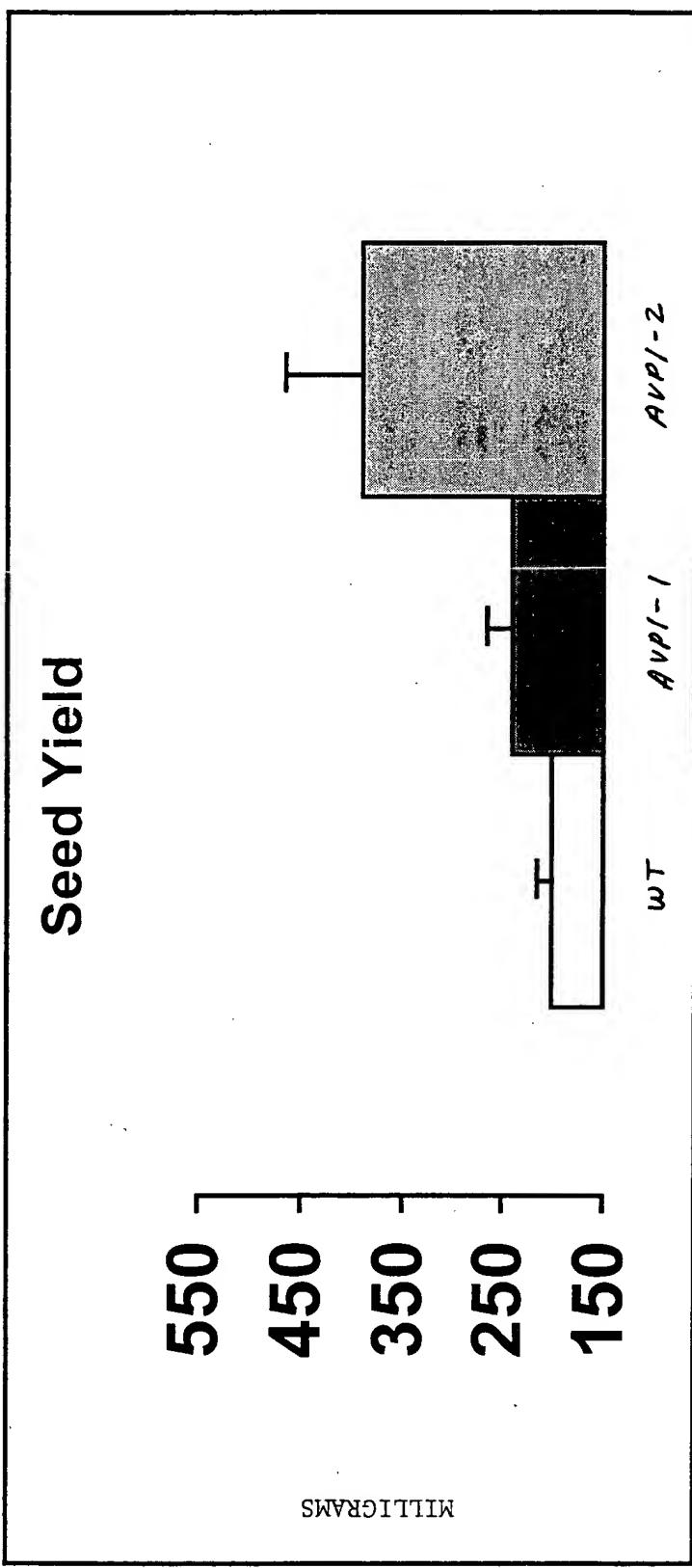


Figure 9. Seed yield.
Wild type, *AVP1-1* and *AVP1-2* transgenic plants were grown in a 16 hour light / 8 hour dark cycle for two months. Seeds were harvested and weighted. Values are means +/- SD ($n = 7$).

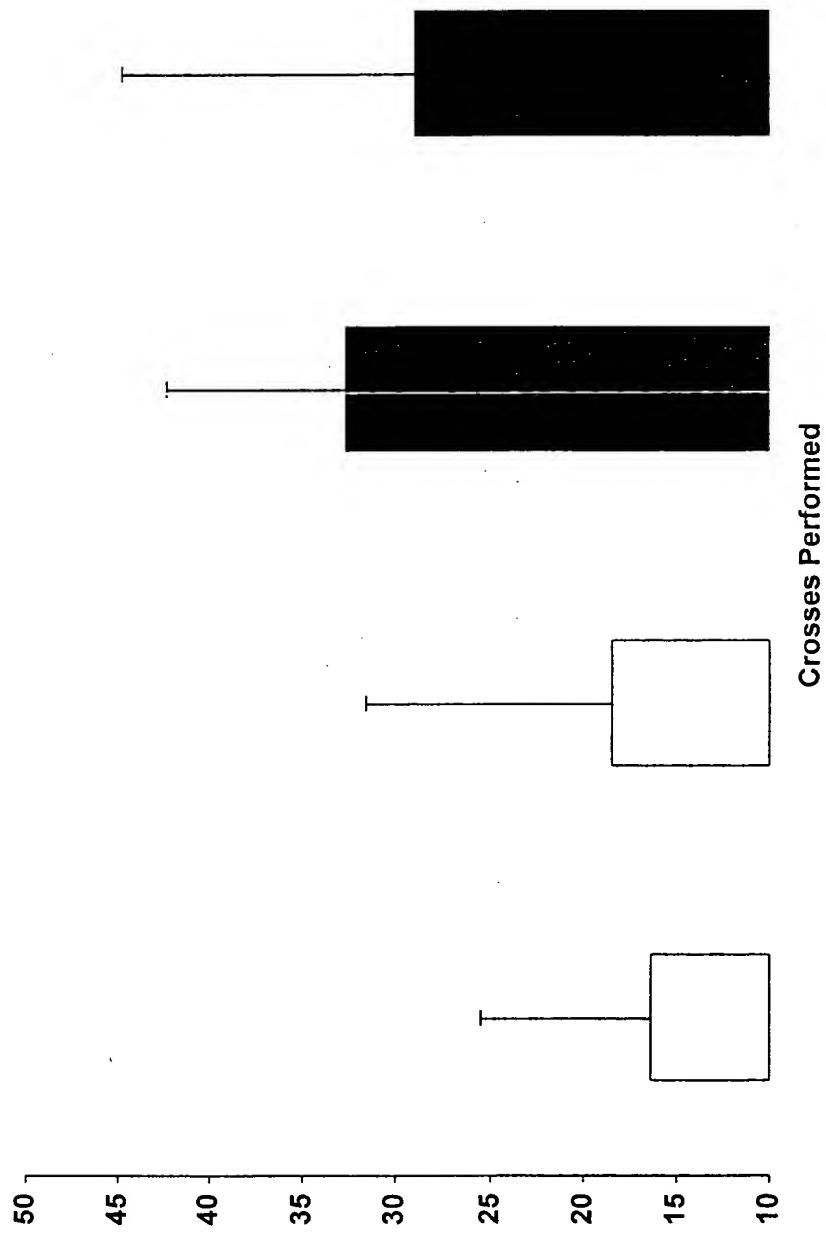


Figure 10A. Average number of seeds. Pollen from wild type plants was used for pollination of transgenic *AVP1-1* and *AVP1-2* lines (white bars). Pollen from the above transgenic plants was used for pollination of wild type plants (black bars). Values are means $+\text{--} \text{SD}$ ($n = 10$).

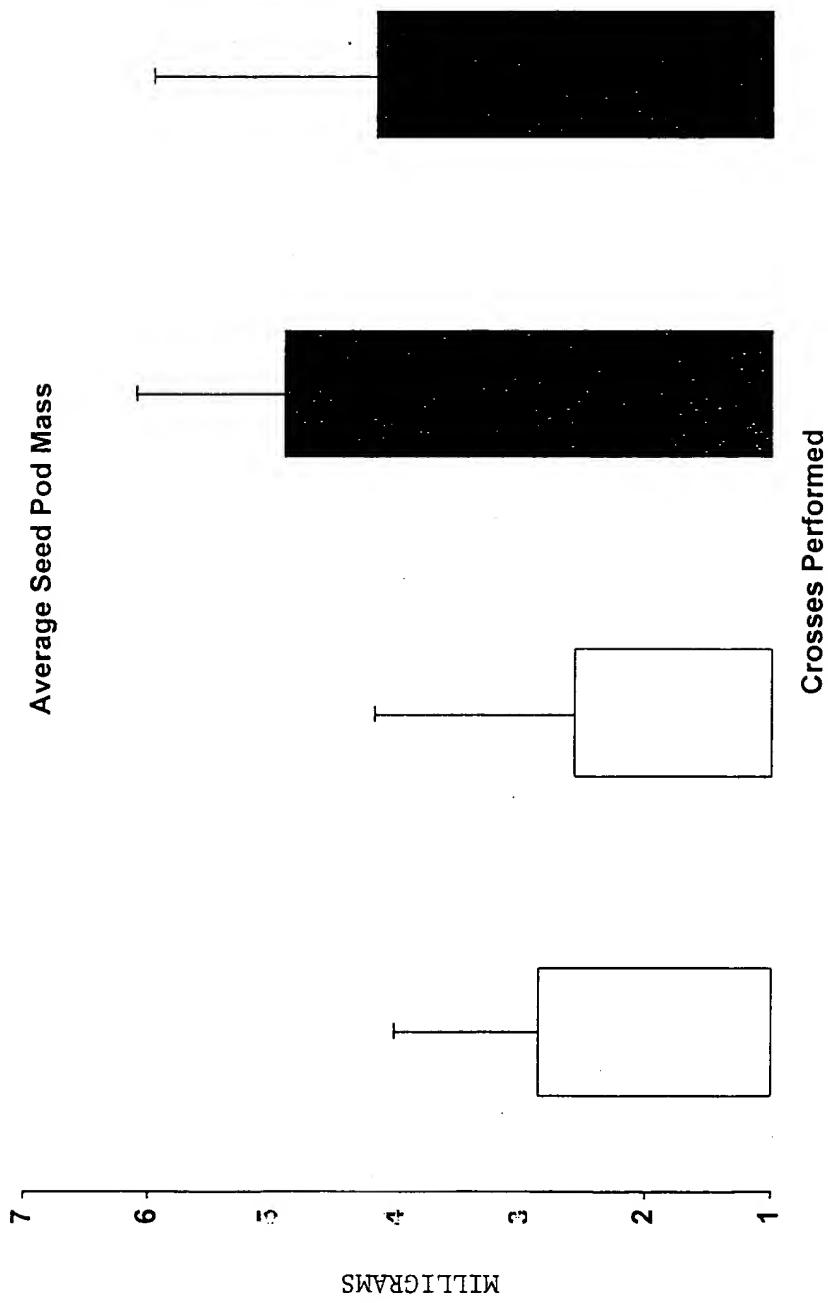


Figure 10B . Average seed pod mass.
 Pollen from wild type plants was used for pollination of transgenic *AVP1-1* and *AVP1-2* lines (white bars). Pollen from the above transgenic plants was used for pollination of wild type plants (black bars). Values are means $+\text{- SD}$ ($n = 10$).

Volume of seeds in 5 tobacco pods

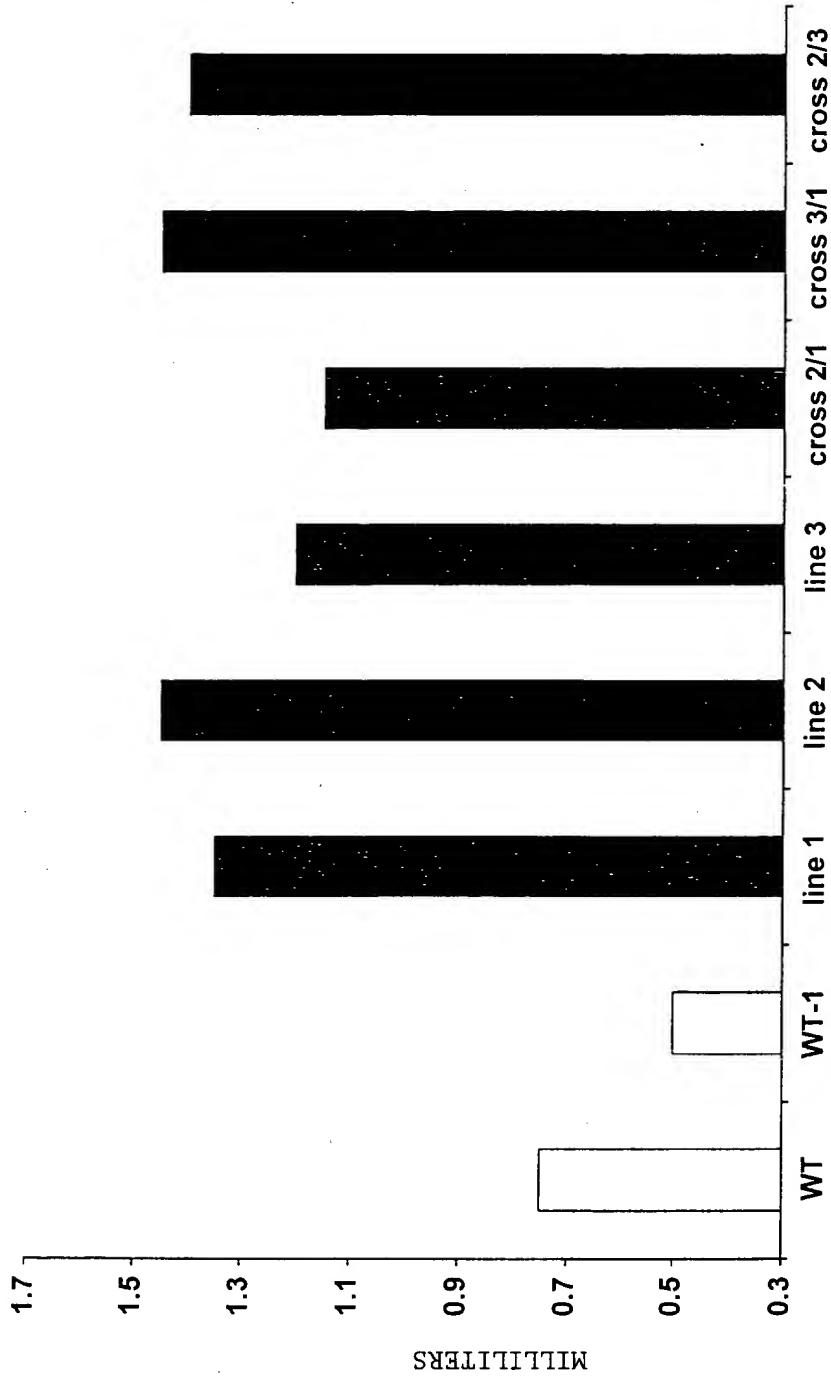


Figure 11. Volume occupied by seeds from wild type and transgenic tobacco.

Five seed pods from wild type (white bars) and *AVP1* transgenic plants (black bars) were collected in eppendorf tubes, and their volume determined.

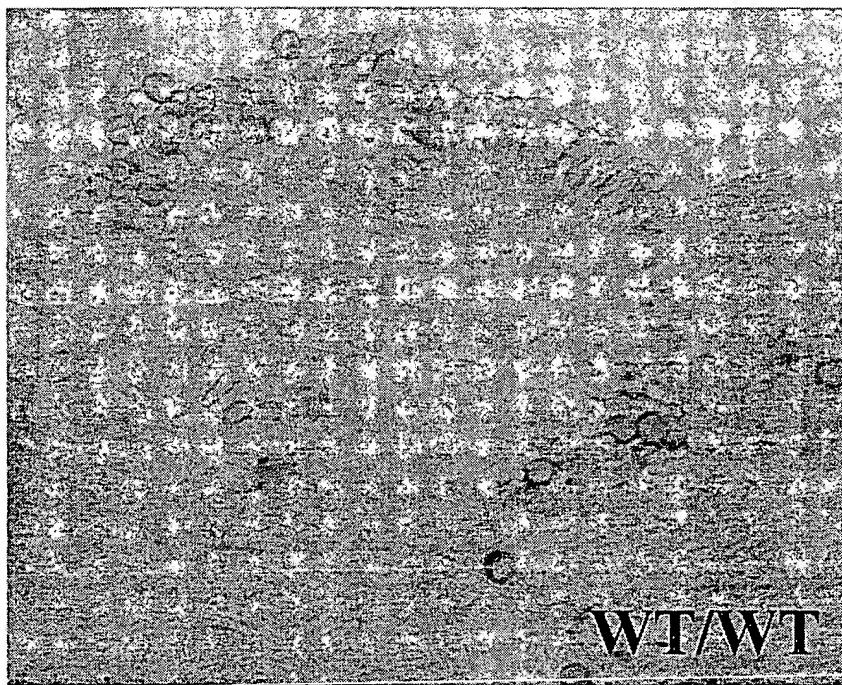


Fig. 12A Photomicrograph (40x) showing formation of pollen tubes in the papillae of the stigma of a wild type *Arabidopsis thaliana* plant pollinated with wild type pollen.

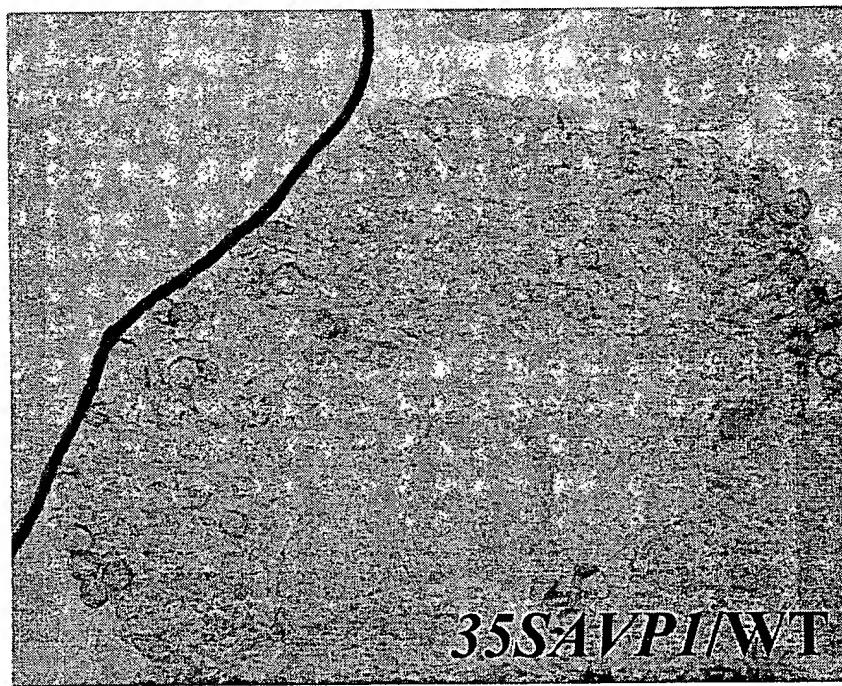


Fig. 12B Photomicrograph (40x) showing formation of pollen tubes in the papillae of the stigma of a wild type *Arabidopsis thaliana* plant pollinated with 35S AVP1 transgenic pollen.

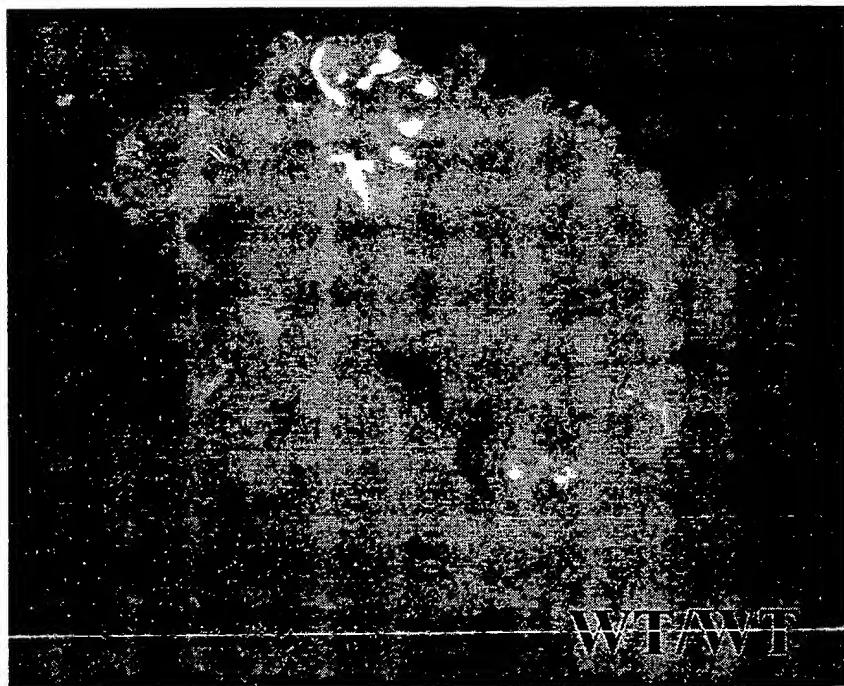


Fig. 13A Photomicrograph (40x) showing fluorescence of wild type tube forming pollen in wild type *Arabidopsis thaliana* plant six hours after application, stained using theanine blue.



Fig. 13B Photomicrograph (40x) showing fluorescence of 35S AVP1 tube forming pollen in wild type *Arabidopsis thaliana* plant six hours after application, stained using theanine blue.